



Exploring the Emotional Experiences and Emotional Strategies of English Major Students in the Use of AI

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Abstract. In recent years, AI has grown increasingly popular in higher education and serves as a key innovation for English majors in the "Internet +" era. While AI enhances English learning, learners' emotional experiences during its use have been largely neglected. To address this, the study examined the AI-related emotions of 15 Chinese English majors. Data were collected via qualitative methods, semi-structured interviews, and a narrative framework, then analyzed with MAXQDA v2024. Results showed students primarily felt positive emotions like motivation, interest, achievement, and confidence, but also experienced negatives such as dependence, loneliness, and mechanicalness. To regulate emotions, students adopted strategies including reasonable interaction time, distractions, breaks, and reflection on learning. The analysis indicates that while AI brings both benefits and drawbacks to emotional experiences, it significantly helps learners manage these emotions.

Keywords: Artificial Intelligence, English Students, Emotional Experiences, Learning Process, Emotional Strategies

1 Introduction

In recent years, the rise of "Internet +" has facilitated the extensive integration of artificial intelligence into language education. AI technologies, such as Deepseek, Kimi, and Doubao, have introduced innovative tools for English learning, transforming traditional teaching approaches. Nevertheless, within the educational domain, the significance of emotional experiences in AI-assisted learning remains underexplored. Emotional factors not only play a critical role in shaping learning motivation and outcomes but may also give rise to challenges such as over-reliance on AI and feelings of isolation. ^[1]Consequently, investigating the emotional experiences of English major students while using AI is essential for refining teaching practices and improving overall learning experiences.

2 Literature Review

2.1 Artificial Intelligence and Education

The integration of "Internet Plus" with the education sector, referred to as "Internet Plus Education," represents a novel educational paradigm that deeply fuses Internet technology with teaching and learning processes. ^[4]In recent years, artificial intelligence (AI), as a key component, has introduced new opportunities for English education, including personalized learning, intelligent tutoring systems, and comprehensive learning outcome assessment. Specific applications, such as intelligent translation tools (e.g., Google Translate), speech recognition technologies (e.g., Elsa Speak), and online intelligent tutoring platforms (e.g., VIPKid), have substantially improved the efficiency and overall experience of English learning. Nevertheless, the widespread adoption of AI in education has also raised concerns regarding issues such as over-reliance on technology and emotional well-being. While computer technology underpins AI-driven educational advancements, its inherent limitations may lead to negative emotional experiences among students.

2.2 Emotional Experiences of Foreign Language Learners

Emotional experiences play a crucial role in learning, impacting learning motivation, cognitive processes, and outcomes. According to flow theory, designing tasks that align with learners' abilities can elicit positive emotions, thereby enhancing learning interest and self-confidence. ^[3]However, negative emotions that may emerge during AI use, such as loneliness and over-dependence, can undermine learning outcomes. Additionally, emotional states affect learners' attention allocation and cognitive processing capabilities when interacting with AI tools.

2.3 Emotional Regulation Strategies

In the process of learning English with artificial intelligence, learners must employ emotion regulation strategies to address the complex emotions arising from AI-assisted learning. ^[6]According to Gross (1998), emotion regulation refers to the process through which individuals manage and modify their emotional states. Learners can regulate both positive and negative emotions and achieve emotional balance by setting achievable goals, enhancing interactivity, and utilizing other approaches.

3 Research Methods

3.1 Research Purpose

This study aims to comprehensively investigate the emotional experiences of English learners while utilizing artificial intelligence tools. Specifically, this study addresses the following research questions:

Q1: What positive and negative emotions do Chinese students experience when interacting with AI in English classrooms?

Q2: How do Chinese students regulate their positive and negative emotions when using AI tools?

3.2 Research Design

A qualitative research design was employed, and data were gathered through semi-structured interviews and narrative analysis. The participants consisted of 15 English major students from various grades and learning levels.

3.3 Data Collection

3.3.1 Semi-structured Interviews.

To uncover the emotional experiences and regulation strategies of English learners while using artificial intelligence, three open-ended questions were designed. Semi-structured interviews were conducted to facilitate online interaction with participants and elicit their authentic emotional experiences related to artificial intelligence use.

3.3.2 Narrative Framework.

The second data source of this study was a written narrative framework completed by the research participants, which aligned with the research questions. This framework consisted of four sections requiring detailed responses, which were completed by the students and submitted via WeChat.

3.4 Data Analysis.

This study conducted a qualitative analysis of the data obtained through semi-structured interviews and narrative frameworks. The fundamental principle of content analysis using the MAXQDA software relies on the capabilities of the "Computer-Assisted Qualitative Data Analysis" (CAQDA) program to enhance the credibility of the analysis process.

4 Research Findings

4.1 Emotions Evoked by AI

AI induces both positive and negative emotions. To explore this, interviews with participants analyzed positive emotions (see Figure 2)^[2]. Learners report seven positive emotions when using AI: interest, excitement, curiosity, accomplishment, contentment, confidence, and freedom. (as shown in Figure 1). Among these, "accomplishment," "confidence," and "excitement" are most common. S1 stated, "AI tools make me feel confident and accomplished in applying English." Another student said,

"Correcting grammar with AI is fulfilling." S4 added, "AI boosts confidence, reducing stress." Charts and interview data show these emotions enhance user experience via feedback and satisfaction, stimulating motivation.

	Excited	Curious	Achievement	Interesting	Satisfied	Confident	Free
Positive emotions	13.33%	6.67%	33.33%	6.67%	6.67%	26.67%	6.67%

Fig. 1. Positive Emotions Evoked by AI Tools.

Research findings show that English learners experience six negative emotions when using AI: dependence, pressure, confusion, disappointment, loneliness, and helplessness. (as shown in Figure 2). Among these, disappointment and pressure are most common, while loneliness and helplessness occur equally. S1 noted, "AI's mechanical responses often disappoint me." S10 added, "Excessive data feedback from AI creates pressure." S3 expressed, "Using AI makes me feel lonely due to the lack of peer interaction." S15 mentioned, "I feel helpless when AI provides slow or inadequate responses." Regarding confusion, S5 stated, "AI sometimes offers unclear explanations." Another student remarked, "AI fosters dependence, leading to anxiety."^[7] In summary, disappointment stems from AI's limitations, pressure from excessive feedback, loneliness and helplessness from social isolation and inefficiency, and confusion and dependence highlight usability and learning challenges.

	Dependency	Pressure	Confusion	Disappointment	Loneliness	Helplessness
Negative emotions	6.67%	20.00%	6.67%	40.00%	13.33%	13.33%

Fig. 2. Negative Emotions Evoked by AI Tools

4.2 Emotional Regulation Strategies

English language learners primarily regulate their emotions through five strategies: cognitive change, communication with others, maintaining positivity, distraction, and seeking assistance (as shown in Figure 3). Among these, cognitive change constitutes the largest proportion. S8 states, "By formulating a study plan, alternating between artificial intelligence tools and traditional textbooks, incorporating multimedia resources such as films and television, and avoiding over-reliance on a single tool, emotional regulation can be effectively achieved." Within the narrative framework, S4 explains, "Engaging in communication with teachers and peers helps alleviate negative emotions and fosters a positive mindset." Distraction involves pausing the use of AI tools or engaging in relaxation activities to interrupt negative emotions. Seeking assistance is relatively less frequent. S5 mentions, "Negative emotions induced by artificial intelligence can be mitigated through relaxation techniques and temporarily pausing its use."

Emotional regulation strategies	
Communicating	21.43%
Maintaining a positive attitude	21.43%
Seeking help	7.14%
Cognitive	28.57%
Shifting attention	21.43%

Fig. 3. Emotional Regulation Strategies for AI Tools

5 Discussion and Recommendations

The study shows that artificial intelligence can evoke positive emotions in learners, such as achievement, confidence, and excitement, significantly affecting learning outcomes and personal development. ^[8]However, it may also cause negative emotions like disappointment and stress, impacting learning efficiency and emotional well-being. Based on Saul Kaplan's "Emotion Regulation Theory," which aligns with general emotion regulation strategies, techniques such as cognitive restructuring, communication, and distraction can help learners manage their emotions. Although Kaplan's theory has limitations, it highlights the importance of emotion regulation in addressing AI-related challenges. The study also reveals that AI has a dual impact on learners' emotions: enhancing positive emotions boosts self-efficacy, but its mechanistic nature may weaken this effect, offering new insights into existing theories.

To optimize AI based on research feedback, improvements can include refining AI tools with emotional support features, developing real-time emotion-monitoring systems through voice and text analysis, and providing constructive feedback to maintain a positive mindset. Enhancing interaction via online discussion forums, collaborative platforms, and teacher intervention mechanisms can encourage teamwork and community building. Creating a virtual learning companion system and introducing cooperative achievement and emotional incentive frameworks can boost engagement and motivation.^[5] In education, English teachers should act as facilitators, helping students use AI effectively, solving technical issues, monitoring emotions, and providing timely support. Developing critical thinking and self-regulation skills can help students handle AI-related emotional challenges. Thoughtful integration of AI technology can enhance accessibility, improve user experience, and deepen the fusion of technology and education.

6 Conclusion

This study investigates the emotional experiences of English major students during their use of artificial intelligence, offering critical theoretical and practical insights for the fields of English education and artificial intelligence application. By thoroughly analyzing these emotional experiences, the study reveals the presence of both positive and negative emotions and their influence on learning outcomes, as well as the emotion regulation strategies employed by students. These findings provide substantial theoretical and practical implications for English education and artificial intelligence application, fostering the interdisciplinary integration of emotion psychology and educational technology, and advancing the development of artificial intelligence in educational contexts. However, the sample used in this study is geographically restricted. Future research could broaden the sample scope, explore emotional experiences across diverse cultural backgrounds, and integrate quantitative and qualitative methods to comprehensively examine the mechanisms underlying emotional experiences, thereby providing more robust theoretical support for the design and application of artificial intelligence tools.

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